

~~CONFIDENTIAL~~Office Memorandum UNITED STATES GOVERNMENT

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TO : The Files - RD-103, T.O. 10

DATE: 22 May 1959

FROM :

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SUBJECT: Trip Report, [] - RS-16B Development

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1. [] was visited on 11, 12 and 13 May 1959 to inspect the progress on Contract RD-103, T.O. 10. The following persons were contacted:

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[]

2. One RS-16B set has been completed. Shipment of this set is planned for the week of 18 May so that we will have it for a demonstration on 25 May 1959. [] has found difficulty, as did [] with the low voltage power supply supplied by the []. The transistor switching rate of 5 KC has been found to be the source of difficulty. Two-hundred millivolt spikes are produced by the switching action. The spikes should be cut down to 40 millivolts so as not to cause an objectionable hum in the receiver audio amplifier stage. [] will decide whether to make a filter or return the low voltage power supply to [] for reworking.

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3. The RS-16 base station, BR-16, proposal was discussed. The present proposal for this RS-16 base station calls for a Visi-coder output. Polarization diversity would be considered at a later date. It is planned that a supplement will be made in FY 1960 to modify the work being done under this proposal. The modifications will consist of adding a Soroban punch as the output device for the BR-16. The RS-16 field sets will retain the present coder. The only modification to the field set would be the addition of a strip reader through a connector on the RS-16 set. The strip reader will permit us to increase the volume of traffic from the RS-16 set. Synchronization of the base station can be more easily achieved with a stable outboard strip reader. The strip reader timing will be established by a tuning fork oscillator and consequently will be quite stable. No internal changes will be required in the RS-16 field set. It has been found that ten seconds of RS-16 field set operation will pose no problem. This gives us 250 words of traffic. Only one to two minutes rest time will be required between RS-16 shots.

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One problem that may be encountered will be that of lowering the frequency limit of the RS-16 field set. It will be necessary to lower the upper limit of coverage to something like 21 megacycles, if the lower limit is reduced to 4 mc.

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OC-E/R+D-EP/PCV:pjb (20 May 59)

cc: R+D Subject File

R+D Lab

Monthly (2)

EP Chrono

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